CLAIMS:

1. A method of encoding an input digital signal for lossless transmission via a medium (15), the method comprising the steps of:
- receiving the input digital signal comprising at least one packet of digital data; and
- calculating a checksum of the at least one packet of the input digital signal;

characterised in that the method comprises the further steps of:
- encoding the packet of the input signal into an encoded packet of digital data; and
- adding the associated checksum to the encoded packet to form an encoded signal.

2. A method as claimed in claim 1, in which the associated checksum is added to the encoded packet as a separate packet.

3. A method as claimed in claim 1 or 2, in which the checksum is a cyclic redundancy checksum.

4. A method as claimed in claim 1, 2, or 3, in which the method comprises the further step of channel encoding, to enable a lossless transmission via the medium (15).

5. A method of decoding an encoded signal obtained by the encoding method according to one of the claims 1 through 4, comprising the steps of:
- receiving the encoded signal;
- extracting the encoded packet and associated checksum from the received encoded signal;
- decoding the encoded packet into a decoded packet comprising the input digital signal;
- calculating a checksum for the decoded packet; and
- if the calculated checksum corresponds with the extracted checksum, outputting the decoded packet as an output signal.

6. A method as claimed in claim 5, in which the method comprises the further step of interpolating the decoded packet if the calculated checksum and the extracted checksum are unequal.

7. A method as claimed in claim 5, in which the method comprises the further step of muting the decoded packet if the calculated checksum and the extracted checksum are unequal.

8. A method as claimed in claim 5, 6 or 7, when dependent on claim 4, comprising the further step of channel decoding before the step of receiving the encoded signal, to enable a lossless transmission via the medium (15).

9. An apparatus (10) for encoding an input digital signal comprising at least one packet of digital data for lossless transmission via a medium (15), the apparatus (10) comprising:

- first calculation means (12) for calculating a checksum of the at least one packet of the input digital signal;

characterised in that the apparatus further comprises:

- encoding means (11) for lossless encoding of the at least one packet into an encoded packet of digital data; and
- composition means (13) connected to the calculation means (12) and encoding means (11) for adding the associated checksum to the encoded packet to form an encoded signal.

10. An apparatus as claimed in claim 9, in which the composition means (13) are arranged to add the associated checksum to the encoded packet as a separate packet.

11. An apparatus as claimed in claim 9 or 10, in which the calculation means (12) are arranged for calculating the checksum as a cyclic redundancy checksum.

12. An apparatus as claimed in claim 9, 10 or 11, in which the apparatus further comprises channel encoding means (16) connected to the composition means (13) and being arranged to enable a lossless transmission via the medium (18).

13. An apparatus (20) for decoding an encoded signal obtained from the encoding apparatus according to one of the claims 9 through 12, comprising:

- extracting means (21) for receiving the encoded signal and extracting the encoded packet and associated checksum from the received encoded signal;

- decoding means (22) connected to the extracting means (21) for decoding the encoded packet into a decoded packet comprising the input digital signal;
- second calculation means (23) connected to the decoding means (22) for calculating a checksum for the decoded packet; and
- output means (24, 25) connected to the extracting means (21), second calculation means (23) and decoding means (22) for outputting the decoded packet as an output signal if the calculated checksum corresponds with the extracted checksum.

14. An apparatus as claimed in claim 13, in which the output means (24, 25) are further arranged for interpolating the decoded packet if the calculated checksum and the extracted checksum are unequal.

15. An apparatus as claimed in claim 13, in which the output means (24, 25) are further arranged for muting the decoded packet if the calculated checksum and the extracted checksum are unequal.

16. An apparatus as claimed in claim 13, 14 or 15, when dependent on claim 12, further comprising channel decoding means (17) connected to the extracting means (21), the channel decoding means (17) being arranged to enable a lossless transmission via the medium.

17. A signal comprising at least a packet of a first type and a packet of a second type, obtained by the method as claimed in one of the claims 1 through 4.

18. A storage medium comprising a signal as claimed in claim 17.